

AMENDMENTS THE CLAIMS

Claims 1-3 (Canceled).

Claim 4 (Currently Amended): A diffraction element comprising:

~~a diffraction grating having a concave/convex shape in cross-section formed in an incoming-side surface and an outgoing-side surface of a transparent~~ a substrate, comprising
~~wherein the an~~ incoming-side surface is opposite the to an outgoing-side surface, and
the incoming-side surface is configured to receive light external to the diffraction grating
substrate,

~~the a~~ diffraction grating comprises comprising:

an incoming-side diffraction grating having a concave/convex shape in cross-section
disposed in a central region of the incoming-side surface; and at least one

a first outgoing-side diffraction grating having a concave/convex shape in cross-
section disposed in the outgoing-side surface and configured to receive light diffracted by the
incoming-side diffraction grating, the grating pitch of the incoming-side diffraction grating is
being substantially equal to the grating pitch of the at least one first outgoing-side diffraction
grating[[],]; and

~~the incoming-side diffraction grating and the at least one a second outgoing-side~~
~~diffraction grating are formed in comprising a single layer inorganic film formed on the~~
~~incoming-side and outgoing-side surfaces and having a concave/convex shape in cross-~~
~~section, the second outgoing-side diffraction grating disposed in the first outgoing-side~~
diffraction grating.

Claim 5 (Currently Amended): The diffraction element according to Claim 4, wherein
~~the at least one first~~ outgoing-side diffraction grating is a reflection type diffraction grating.

Claim 6 (Currently Amended): The diffraction element according to Claim 5, wherein the ~~at least one~~ first outgoing-side diffraction grating is ~~a diffraction grating having~~ has a saw-tooth concave/convex portion or a pseudo sawtooth diffraction grating wherein a saw-tooth shape is approximated by stairs.

Claim 7 (Currently Amended): The diffraction element according to Claim ~~[[6]]~~ 5, wherein the ~~at least one~~ first outgoing-side diffraction grating comprises ~~the~~ a pseudo sawtooth diffraction grating ~~in which the~~ having a saw-tooth shape is approximated by the stairs, and a height or depth of a first step of the stairs is different from a height or depth of a second step of the stairs.

Claims 8-11 (Canceled).

Claim 12 (Currently Amended): A method of diffracting light with a diffraction element including a diffraction grating having a concave/convex shape in cross-section formed in an incoming-side surface and an outgoing-side surface of a transparent substrate, in which the incoming-side surface is opposite the outgoing-side surface, and the incoming-side surface is configured to receive light external to the diffraction grating, the diffraction grating ~~includes~~ including an incoming-side diffraction grating disposed in a central region of the incoming-side surface and ~~two~~ a first outgoing-side diffraction ~~gratings~~ grating disposed in the outgoing-side surface and configured to receive light diffracted by the incoming-side diffraction grating, the grating pitch of the incoming-side diffraction grating is being substantially equal to the grating pitch of ~~at least one of the two~~ the first outgoing-side diffraction ~~gratings~~ grating, ~~the incoming-side diffraction grating and the two~~ and the

diffraction grating including a second outgoing-side diffraction ~~gratings are formed in grating~~
~~with a single layer inorganic film formed on the incoming side and outgoing side surfaces,~~
the second outgoing-side diffraction grating disposed in the first outgoing-side diffraction
grating, and the two the first and second outgoing-side diffraction ~~grating are gratings being~~
reflection type diffraction gratings each having a saw-tooth concave/convex portion or a
pseudo sawtooth diffraction grating wherein a saw-tooth shape is approximated by stairs, the
method comprising:

directing to a wavelength measuring apparatus light diffracted by the ~~at least one of~~
~~the two~~ first and second outgoing-side diffraction gratings ~~which has the grating pitch~~
~~substantially equal to the grating pitch of the incoming side diffraction grating.~~

Claim 13 (Previously Presented): The method according to claim 12, wherein the
incoming-side diffraction grating has a saw-tooth shape.

Claim 14 (Currently Amended): A diffraction element comprising:
a substrate having first and second surfaces opposite one another;
~~a first single organic layer disposed on the first surface;~~
~~a second single organic layer disposed on the second surface;~~
a first diffraction grating disposed in a central portion ~~on the first single organic layer~~
of the first surface, the first diffraction grating configured to receive light from outside of the
substrate, the first diffraction grating having a first grating pitch; ~~and~~
a second diffraction grating disposed ~~on the second single organic layer~~ in the second
surface, the second diffraction grating configured to receive light diffracted by the first
diffraction grating, the second diffraction grating having a second grating pitch about equal to
the first grating pitch, and

a third diffraction grating comprising a single layer inorganic film, the third
diffraction grating disposed in the second diffraction grating.